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PART IV

THE MANAGEMENT OF EMPLOYING CONCERNS IN ITS RELATION TO UNEMPLOYMENT

Philadelphia employers cannot afford to disregard the injury received from unemployment. No community can, without grave concern, witness the degeneration of its working classes through unemployment, nor can it be oblivious to the terrific injury to its industrial interests through unemployment. The obligation, therefore, rests upon the entire employing community to do everything that is humanly and financially possible to reduce this evil.

Philadelphia's methods of meeting her unemployment during the winter of 1914-15 cannot be regarded for a minute either as permanent or ideal. At best, charity is not a satisfactory solution of unemployment. Our charitable methods during the past winter were particularly unfortunate. In this connection, we should freely recognize the very remarkable administrative efficiency and the spirit of public service and actual accomplishment which characterized the Emergency Aid Committee. It may even be granted that, in lieu of better measures, such steps may possibly be necessary, in unusually severe times, in order to prevent suffering. At such times we "face a fact, not a theory." But we must not consider charity as a satisfactory way to meet unemployment. Such a program tends to pauperize a community, invite shiftlessness and discourage self-reliance. As Jeff Davis, king of the hoboes and manager of the Hotel De Gink in New York, puts it, "If you pay people to beg they will beg; if you pay 'em to work, they'll work." It furthermore tends to disgrace self-respecting workers and to injure their pride permanently. Emergency committees and public aid can be justified only in cases of severe extremity, under conditions analogous to those in a hospital, where a very dangerous and unusual operation is sometimes resorted to in order to save a dying patient's life. The necessity of resorting to charity to handle unemployment, instead of being a solution of the problem, is an admission that we have not solved it. It is a mortify-

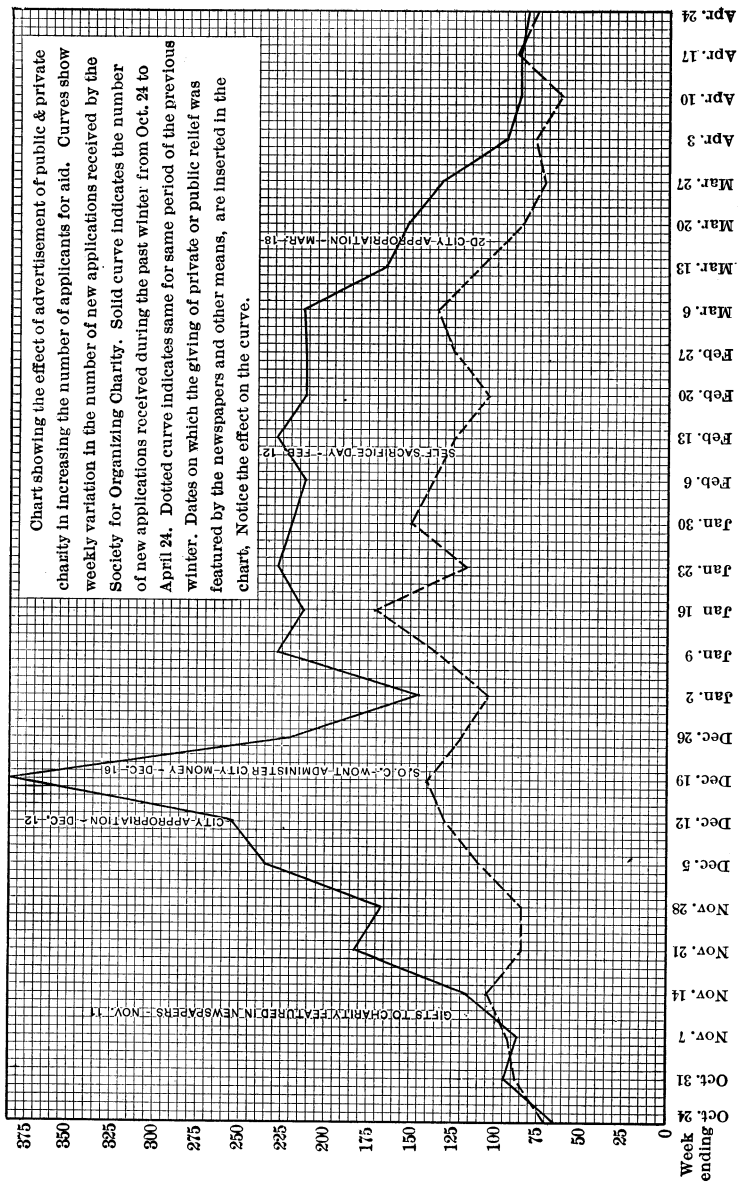


FIGURE 21

ing evidence that we have not been sufficiently "on the job" to create an industrial society in which such catastrophes cannot occur. Unemployment catastrophes are the punishment for our neglect.

The effect that highly advertised charity has in destroying self-reliance and in teaching people to become voluntary paupers is abundantly found in the city's experience during the winter of 1914-15. Shortly after the first appropriation of \$50,000 by Councils, large numbers of foreigners appeared before the branch offices of the Society for Organizing Charity in South Philadelphia and demanded "some of the city money" as their inalienable right. Of 94 new applications that came in to the southeast district immediately after the donation of public aid was featured in the newspapers, one of the heads of the Society for Organizing Charity selected at random nine cases that would be roughly typical. Investigation showed that all but one of these cases were not only undeserving, but not even seriously needy. This clogging of the machinery of organized charity with undeserving cases makes it difficult to reach and handle the really needy case at a time when help is most needed. Better evidence of the effect of the wide advertising is found in the sudden and large increase in the number of new applications received by the charitable societies immediately after the appropriation of city money, the formation of the Emergency Aid, Self-Sacrifice Week, etc., became public through the newspapers. The connection between the number applying for charitable aid and the excessive advertisement that is connected with the granting of public relief is seen in fig. 21, which shows the number of new applications received each week during this winter, in connection with the dates on which the granting of relief was featured in the newspapers. Meeting unemployment with charity tends to produce the type of individual similar to a Philadelphian whom we may call "Jack." Jack had been out of work four months. A friend expressed his sympathy and received the reply, "Oh, it's not bad, it's like any other trade after you learn it."

To what extent Philadelphia's advertised philanthropy during the past winter tended to bring into this city the floating vagrants of other cities, it is impossible to say. It is reasonable to

suppose that that result was brought about in Philadelphia during the winter of 1914-15.

Unemployment is primarily a question of industry and industrial organization. The manager of a shoe manufacturing company in Philadelphia asserts that unemployment cannot be reduced to any great extent under the present individualistic, competitive system of doing business. Waiving the question as to whether this fatalism is justified or not, it is obvious that the introduction of a new industrial system is a proposition so doctrinaire that it can scarcely be counted as offering any immediate practicable hope. It behooves us, therefore, to see what can be done under the present system. Since unemployment is an industrial question, the responsibility for ameliorating the evil must rest primarily upon the shoulders of those in control of modern industry, regardless of whether the unemployment be due to individual management of a business or to broader economic considerations. It is distinctly up to employers to attack the problem more seriously than they, as a whole, have heretofore; whether they do it from altruistic motives or because of the fact that, in the long run, it is the wisest business policy. It is up to them, even if it involves as fundamental changes as a certain large manufacturer implies when he says, "To secure uniform daily production, and to partially eliminate the evils of seasonal production, require practically an entire reorganization of the business with this as one of the primary objects. It is not a part of the organizing methods; it is a primary objective and must permeate every fibre of the whole institution."

Philadelphia boasts that she is the "World's greatest Workshop." In few ways can her employers more certainly insure that this phrase shall remain true than by eliminating unemployment. Philadelphia, free from unemployment, would attain a degree of prosperity at present undreamed of. If injury to our community, through unemployment, continues to be disregarded we may endanger our crown.

What steps in dealing with unemployment are the more advanced, progressive and thoughtful employers taking which point the way for the majority to follow?

Before answering this question it must be recognized that the widespread unemployment that results from such unusually

severe industrial depressions as we experienced during the past winter and as are more or less frequently caused by money panics, or "psychological" panics, or European War, or fluctuations in the tariff, is a thing which can seldom be offset by the efforts of the employer, without the risk of endangering his industrial existence. Although he has an obligation, so far as it is industrially safe for him, to furnish employment at such times, the causes of such conditions are not of his making; and such depressions are frequently so severe that he has all he can do to keep his industrial ship afloat. In other words, unemployment is, in some respects, a thing so broad in its origin that effective action to prevent its causes must be nation or world-wide.

To go back to the original question, "What can employers do?" Special study has been made of the textile industries; but many of the illustrations used are from other industries and the points mentioned are, to a greater or less degree, applicable to all industries.

At the outset it must be accepted as a fundamental principle that each employing concern should regard itself as one industrial family for the welfare of whose members the concern is responsible in the way in which the head of a private family is responsible for its members. This fundamental principle must underlie an employer's entire attitude towards his working force and guide all his efforts against unemployment. In the long run this will prove the only sound business policy.

With this family relationship, the 100 per cent ideal, rarely possible of complete attainment, but toward which we should strive, is for each employer and each firm to accept responsibility for keeping a certain definite number of employes steadily employed—without overtime and with the minimum possible changes in personnel. This number should be the "rating" which each firm gives itself as the number it can keep steadily employed. As one very progressive and successful employer writes:

Many employers do not realize their duty to keep their working force intact under all conditions, with the exception of the very most unusual and aggravated cases of industrial depression. The keeping of the working force intact is not only a duty of the employer toward the employe and to the community, but it is on the face of it the only sound business policy. I believe not only that all public agencies should educate the employer toward the importance of this policy, but

that they should also educate the employer to the fact that vocational and periodical depression must be looked for and should be provided against in prosperous times, at least to such an extent that a definite, sound and just policy is assured to the employe and to the community, if not more material help in some instances.

1. OBTAINING AND ANALYZING THE FACTS IN EACH INDIVIDUAL PLANT

The first need of each individual employer, just as with the community as a whole, is the need for more information. Enough has been said to show that a large percentage possesses nothing but vague information about their own conditions. In order to know just what the amount of unemployment is in his firm and just what are the various causes, each employer should collect daily records which would show, by departments and tasks, for each day, week, quarter or year, the following:

1. Total number of employes in mill
2. Total number of absences
3. Causes of each absence
4. Actual payroll
5. Total payroll if all nominally on the payroll had been working full time
6. Actual number of hours made in plant
7. Total number of hours made, if all on payroll had been working full time
(deduct national holidays)
8. Number of new employes
9. Employes laid off:—
 - a—Total number
 - b—Good reasons (marriage, death, promotion, etc.)
 - c—Where individual was responsible
 - d—Where firm was responsible
 - e—Where responsibility was uncertain

This information would enable a firm to compile for any given period information to show:

1. The modulus of employment (*i.e.*, the percentage of full time worked by employes). This would be ascertained by determining the rates between the actual total number of hours worked in the plant during the year and the number which would have been worked if all on the payroll had made full time (barring national holidays),—as follows:

$$\text{Modulus of employment} = \frac{\text{actual total hours worked per day, week, month, etc.}}{\text{total hours worked if on continuous full time operation during same period.}}$$

2. The causes of unemployment and the importance of each, thus indicating definite points for the firm to attack its own unemployment problem.

3. The labor turnover (*i.e.*, the relation between the number of unnecessary hirings and the average number employed).

On a basis of information collected by these records, a firm may determine just what its own labor turnover is for any given period. Labor turnover in its relation to unemployment is discussed on page 63.

The daily report used by one firm to collect information of this character is shown below:

ABSENTEE, TARDY AND NEW EMPLOYE REPORT FOR THURSDAY, MAY 20, 1915

Absentees Returned (7)				
Number	Name	Operation	Reason	Time
148	Barbara Zajicek . .	Flps. and wlts. stehd.	Sore throat and backache . .	x 1 da.
300	Maud Cashin. . . .	Foreman.	Father was sick.	x 1 da.
937	Helen Augustine . .	Sle. swd. in.	Per. funeral.	x 1 da.
938	Mary Hoeffler . . .	Sle. swd. in.	Per. funeral.	x 1 da.
969	Steve Dianiska . .	Shou. and slve. fin.	Per. naturalization papers. .	x 1 da.
1163	Mike Jost.	Elevator man.	Sick.	x 2 da.
One Day Absentees (5)				
S. M. R.	Joe. Cavath.	Mach. inspector	Per. went to court.	1 da.
737	Theresa Gedeon . .	Cts. trnd. bott. tckd.		
748	Julia Broch	Col. cor. tckd. and feld. . . .	Sick yesterday.	
751	Agnes Anek.	M. H. col. tckd. and feld. . .	Tel. sick.	
1382	Irene Steenstra . .	Lpl. and fronts exmd.	Sick yesterday.	
More Than One Day Absentees (2)				
41	Charlotte			
	Marquardt.	Route clerk.	Tel. sick.	x 2 da.
164	Adelia Flegler. . . .	Top. pkts. made.		2 da.
New Hands (5)				
843	Minnie Matuska			
769	Alma Dffenback			
1050	Mary Bugar.	Former.		
2375	Mary Tarnovsky. . .	Former.		
2385	Stella Beth.			
Quitter (1)				
1261	Mary Haluska. . . .	Butt. swd. on.	Married.	
Tardy (0)				

By means of this record this firm was able to say at the end of the year:

Actual full time working year.....	48	weeks
Actual amount of time employes could have worked in year.....	45.2	"
Actual amount of time employes actually did work in year.....	42	"

2. INCOMPLETE METHODS OF DETERMINING COSTS

It is not surprising that with such vague knowledge of unemployment as generally prevails, mistakes should be made as to whether it is better business to run or stand idle in certain bad times. As a matter of fact employers very generally underestimate the loss of an idle plant and over-estimate the loss incurred by running during slack times. An expensive haste in shutting down plants in bad times results. The theory held by cost accountants that all the expenses of operating and maintaining a factory must be included in the cost of the output produced serves to increase unemployment by inducing firms to shut down when good business policy demands that they should run at what is apparently a loss. In slack times, when demand has fallen off, the entire expense of maintenance and operation is saddled on to the small output, an apparent high cost of production per unit results. Accordingly the firm hastens to shut down to avoid "running at a loss"—and frequently does not even consider reducing prices—as its selling department may wish—in order to stimulate demand.

Newer cost accounting methods are pointing out the fallacy of this system, insisting that the expense of supporting a part of the plant in idleness is a business expense and should be charged to the business and not into cost of the product. Under this plan, while the plant as a whole might be losing money, a particular department might be making a good profit over its own cost of production. By thus separating the cost of idleness and the actual cost of production, it appears that it will frequently be better business to run when the plant as a whole is seemingly running at a loss rather than to shut down and carry those as well as greater losses in idleness. One authority on this subject asserts he will shortly be able to prove that it will pay an employer to run a department at what prevailing cost accounting systems would conclude to be a 25 per cent loss.

3. MAINTAINING AN EXCESSIVE LABOR RESERVE

Many firms retain more people on their payroll than they can keep busy. The inevitable result is that some of the employes spend a good deal of their time on the streets or else, as is more often the case, the unemployment that results from this situation is "passed around" among the entire force and a great majority of the working force spend a very large percentage of their working time on "part-time." Taking this year in and year out, the accumulated amount of lost time or unemployment is tremendous.

This situation is illustrated in the lace industry. The prevalence of unemployment among the lace operators through good years and bad (see page 7) shows that there are more workers in the five lace firms in Philadelphia than the business can make use of. Fig. 22 shows the actual output in one firm for the lace department for each month of the last three years, as compared with the approximate output possible if the lace weavers had been running full time.

Firms follow this practice of keeping an excessive number on their payrolls for a variety of reasons. The employer wishes to hold as large a labor reserve as he can so that, if a sudden order for rush delivery should come, he is in a position to put all hands on full time and turn the goods out in a hurry. Or there may be, for a short period of each year, a tendency to fall behind in deliveries; some employers keep enough help on part time, nearly all the year, just to supply their customers promptly at the period of maximum pressure.

A second reason for holding an excessive force is in order to discourage efforts on the part of employes to secure higher wages or other favors which the firm may not desire to grant. When there is a lot of slack time in a plant, employes are less apt to cause trouble by asking for favors. On the other hand, when orders are crowding the firm, the employes have the advantage of a better bargaining position, and consequently use the favorable opportunity to obtain what they want—witness the numerous strikes at munitions plants in the United States during the spring and summer of 1915. In order to obtain the whip-hand in the situation, especially in highly unionized industries, employers endeavor to obtain an

excess of men and machines so that part time may become the rule rather than the exception. One prominent Philadelphia hosiery manufacturer says, "Yes, I want to have enough help and machines so that my help will regularly get through the day at half past three or half past four or five o'clock. They don't ask for higher wages then as they do when they see orders piling up." This situation is apt to manifest itself by a firm having a number of plants in different localities, most of which do not ordinarily run at full capacity, or furnish full-time employment. When a strike at any one plant occurs, it costs the company little or nothing to divert the orders to its other plants. Since it can continue the strike indefinitely with no extra cost, it is sure to win.

A third cause which leads to this situation is a decline in an industry or the failure of an industry to grow as fast as had been anticipated when the expansion of plant took place. In the over-expanded plant, the only advantage to be secured from the otherwise unproductive investment of capital is to keep force enough to man the entire plant—and distribute the work among them all. The excess labor reserve insures prompt deliveries and tends to discourage labor agitation. Under these conditions, labor unions frequently insist upon the firms distributing the work among all those in the trade. Labor unions thus help to hold workers in decaying trades; and the worker himself feels that by leaving his present trade he may sacrifice his skill, endanger his family and perhaps miss an unexpected boom in the present work.

In the fourth place, employers fail to train certain members of the working force to perform more than one single specialized task. This means that each department, each floor, each task must either carry or have available a sufficient number of workers to satisfy its maximum demand for employes. This practice is illustrated by the case of a large hosiery mill in Kensington. In the doorway of that plant ready to insert in the "Help Wanted" sign were the following list of occupations:

Examiners
Boarders
Winders
Knitters
Girls

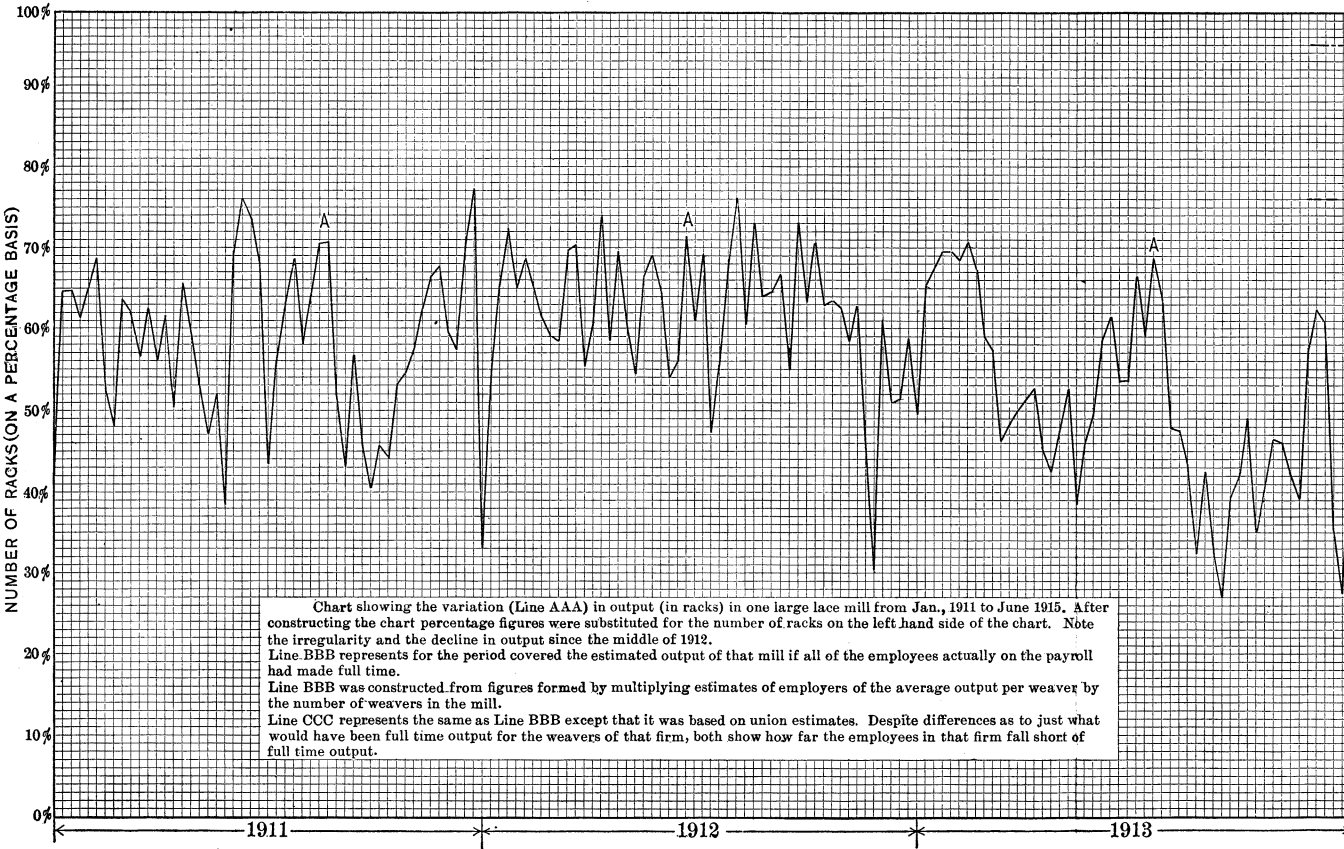


FIGURE 22

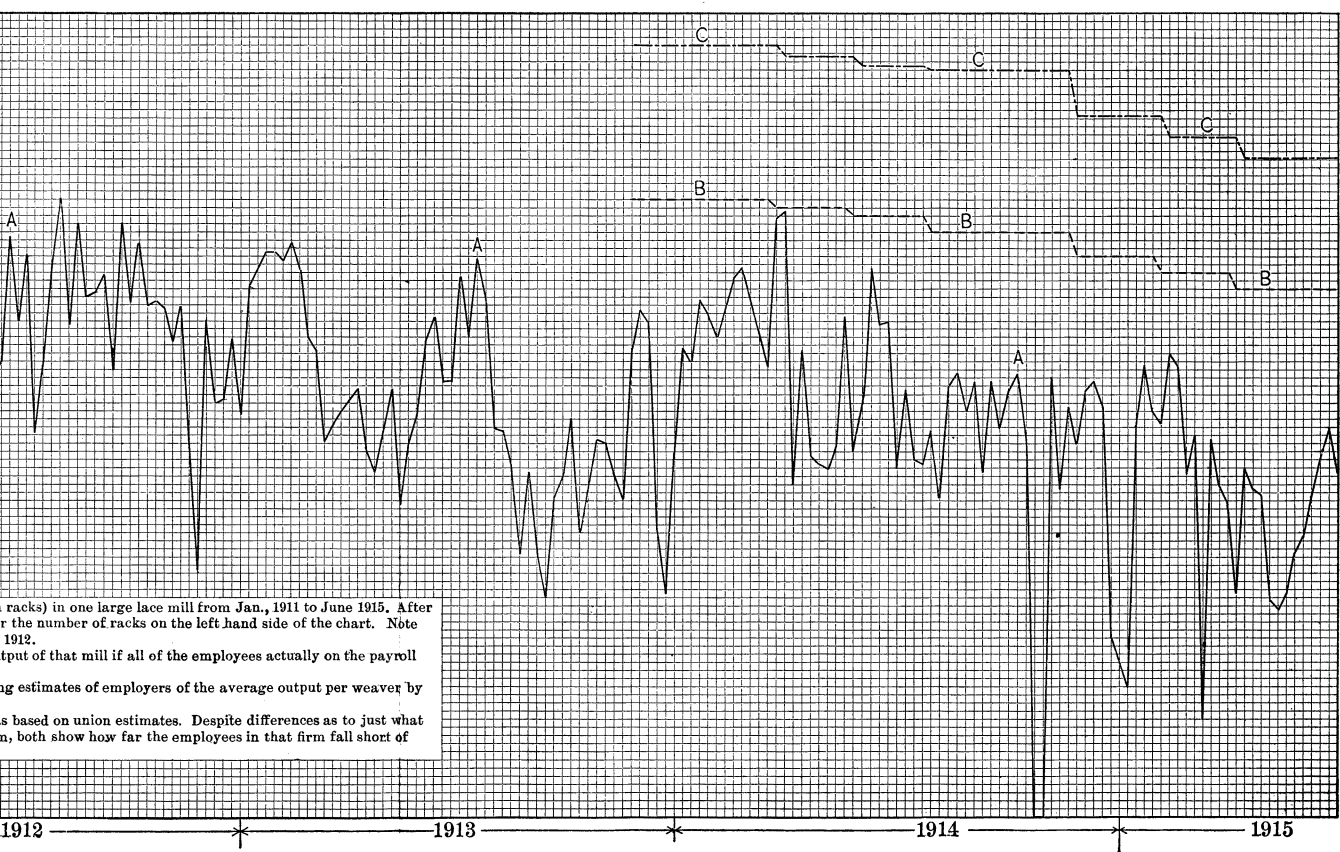


FIGURE 22

Boys
Pairers
Toppers
Loopers
Folders
Welters
Menders

In answer to a question whether workers were ever trained to do more than one task so that an excess of workers in one department might do work in another department, the head of the firm answered "No." Perhaps this answer should not be taken literally, since in almost every hosiery concern employes are shifted from one task to another. However, it is true that there is too great a tendency to train workers for one and only one task in most manufacturing concerns.

In front of a large clothing house in Philadelphia there is a bulletin board on which the concern is constantly making known its wants for workmen and workwomen. It recently read:

Ticket girls
Sewers
Girls
Edge basters
Feller hands
Canvas basters
Pressers

It is not known whether this firm trains a percentage of its employes to work interchangeably in different departments as occasion may require or not. However, this bulletin board list, taken in connection with the list that hung in the doorway of the hosiery firm, shows the specialized ability sought even in simple operations. It also serves to illustrate that unless an employe, who works at such a detailed task, is trained to do more than one thing, he or she must in a great many cases be subject to much irregular employment. If one department cannot call on employes in some other department to help it over a busy period, it must either carry normally an excess of workers, or frequently call in and lay off extra help as required. With each department thus carrying a separate margin, the labor reserve for the entire plant

mounts high. No matter whether it is the practice of the firm to lay these extra men off as soon as the need for them ceases, or whether they are all retained and the work rotated among the force, unemployment to a large degree must result.

This reserve trouble is being, to a considerable extent, obviated by using as far as possible a common reserve for different departments. In the lower grades of work, this is done simply by seeing to it that before such labor is laid off, there is no work in any other department. In the higher grades of help, however, the problem is more complex. Some few firms systematically train all or even a small portion of their help to do (well) two or three tasks other than chosen specialties. All departments then have a common reserve, which can be shifted as occasion demands. Or, if a wide seasonal change in the nature of the work takes place, the majority of the members of the working force simply change to a new occupation. This accomplishes, at least, an avoidance of an excessive labor reserve for that plant and continuity of employment for those on its payroll.

The superintendent of a large printing plant (outside of Philadelphia) who has followed out this idea in training women workers described their methods in a letter as follows:

Many of our girls know how to operate three different machines and are expert at one or more of the manual operations, such as pasting, gathering, hand-folding, gold-laying, etc. That they have this knowledge is due to the fact that scientific management has

First:

Demonstrated the advantage both to the firm and employes of training workers to do more than one kind of work.

Second:

Made it possible to select employes who can learn to do the different kinds of work efficiently.

Third:

Furnished facilities for training the people in the shortest time and with the least effort.

Fourth:

Furnished an incentive for the worker. This incentive may be either financial or the opportunity for advancement or both.

With these selected and trained workers, with a normal amount of work, our regular employes will have practically no lost time even during the slack season,

and their pay should average from 20 per cent to 30 per cent more than under the old system. Workers properly taught soon become bonus earners. Having earned bonus on one kind of work they "get the habit" and when put to other work are not satisfied until they can earn bonus on the new job.

The training of workers to do several kinds of work efficiently, the central control of the work and good routing make it possible:

1. To do a certain amount of work with fewer employes
2. Reduce cost
3. Give workers a higher wage
4. Give workers more steady employment
5. What is perhaps most important of all, it stimulates and develops the workers

There can be no question but that without scientific management we could not have trained the workers to do the different kinds of work and they would not have had as regular employment.

A convenient mechanism which assists in this work is an expense charge symbol which we call "retainers." In case we have a high-priced employe and give him work of a somewhat lower grade than that which he is accustomed to perform, our cost-keeping system permits us to charge the excess up to "retainers," which latter is then spread as a general business expense over the whole product. We use the same accounting device for taking care of the superannuated employes who are no longer able to compete in the matter of output but the question of whose discharge cannot be considered.

In some cases the responsibility for not reducing the labor reserve does not rest with the employers. Labor unions not infrequently oppose the training of employes to do other tasks, under the impression that each trade, by defending itself from the entrance of outside workers, is bettering itself. While some immediate gain may accrue to the trade thus protecting itself, it is a practice that surely does not benefit labor as a whole; and it is doubtful whether, in the long run, it will benefit the trade involved, since conditions will frequently be reversed.

4. REDUCTION OF THE LABOR TURNOVER

By the term "labor turnover" is ordinarily meant the proportion between the total number of persons hired during a year and the average number employed during the year. For example, if a firm requires 500 persons to run its business, and, during the course of the year, has passed through its doors 500 more without enlarging the force, that firm is said to have a labor turnover of 100 per cent.

This method of determining labor turnover is too crude to be

of much use. Figures of turnover so gathered have little or no significance. One year the amount of necessary hiring might be very high due to sickness, deaths, marriages, strikes or some other cause over which the employer has little or no control. The following year, due to an absence of these causes, the apparent turnover might be very low. The actual amount of unnecessary hiring and firing may nevertheless have remained constant. To make our labor turnover figures significant, we must separate the necessary hirings from the unnecessary hirings. We must separate the necessary hirings which grow out of an enlargement of the plant or which are necessary to replace unavoidable withdrawals due to sickness, promotion, death, etc., from the unnecessary hirings, which are in large part the result of poor management in the choosing, assigning, directing, etc., of employes. It is this unnecessary hiring which indicates industrial turmoil and it is this that our labor turnover figures should measure.

To determine such a refined labor turnover there should be deducted from the total number hired during the year the number by which the force was permanently increased during the year. This increase should be determined by subtracting the average number on the payroll at the first four paydays at the beginning of the preceding year from the average number on the payroll at the first four paydays of this year. This might be a minus quantity. Moreover, there should be deducted from the total number of hirings the number of excusable or necessary withdrawals. The proportion which this bears to the total number on the payroll represents the refined labor turnover. The total number on the payroll is found by securing the average number on the payroll at the various paydays.

For example, we may suppose that a firm had an average number on its payroll of the year of 500. During the year 500 persons may have been hired. The permanent force may have been increased by 50 and there may have been necessary withdrawals amounting to 25 during the course of the year. To provide for the permanent increase and replace those who withdrew for an entirely unavoidable cause, this firm, therefore, was justified in hiring 75 persons. Deducting these necessary hirings from the total number of hirings, we may assume that the total amount of

unnecessary hirings amounted to 425. In other words, the firm had a refined turnover of 425/500, or 85 per cent.

Even this "refined" process represents but the crudest sort of method of determining labor turnover. The investigation and study of labor turnover is only just beginning.

The question that immediately comes up is: What is the connection between labor turnover and unemployment? Surely, if "A" is discharged and "B" is hired to take his place, the number employed or unemployed is not altered. However, high labor turnover does affect unemployment in the following fundamental ways:

In the first place, as one manager puts it in a letter: "The answer is obvious, however, to anybody who has been engaged in employment work, that all these moves break down the self-reliance of the workers and decentralize the problem to such an extent that it makes it difficult to study. I know, in particular, of one man who was found, through circumstances over which he had no control, to change his job eight times during one year. At the end of that time he was estimated to have declined 50 per cent in efficiency from that cause alone." In other words, the rapid shift, or flow of labor from shop to shop, tends to increase unemployment by taking men from the more efficient classes—in which workers are apt to be scarce—and placing them in the ranks of the less skilled and unskilled groups which are usually already overcrowded.

In the second place, as long as there are frequent changes in personnel in many classes of labor, by just so much will there be less chance for the development of skill and a good personal relationship between employer and employe. Without these abstract assets the average employer feels less financial and personal incentive to "hold on" to employes by furnishing steady employment.

In the third place, a generally high labor turnover creates an excessively high labor reserve in certain industries. With the kaleidoscopic movement of labor in and out of factories the actual requirements of an industry can be but vaguely known. The man who is "out" does not know what the demand for help in his particular line of work is. He feels that, anyway, the kaleidoscope will soon displace some one from a job and give it to him. This reasoning that "I will soon get a chance" brings an excess of workers

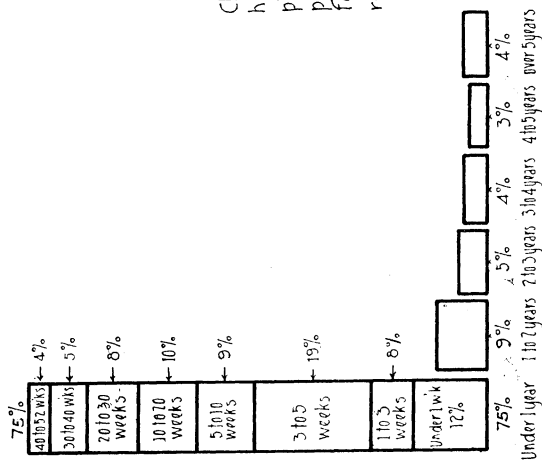


Chart showing length of time male employees hired from 1907 to 1915 remained in the employ of one representative Axminster carpet firm in Philadelphia. The chart for female employees shows almost parallel results.

FIGURE 23

into many industries, and unemployment results. The best illustration of this is found in the dock situation (see page 29).

Finally, in the fourth place, employers are just beginning to realize the costs to them through high labor turnover. If they fully appreciate the money loss that is sustained through excessive hiring and firing—through high labor turnover—and if they realized that irregular employment was one of the important causes of high labor turnover (see page 43), they would give more earnest attention to the problem in their plants.

As one employer, who has made a careful study of labor turnover, puts it, "The real point of the matter (so far as unemployment is concerned) is that if you have a trained worker, say at \$18 a week, and it becomes evident that work is going to be slack for ten days or a couple of weeks, it is cheaper to retain the man, with his experience and knowledge of the company's way of doing business, than it is to engage a new man, without experience, at the end of that period. This argument can be pushed too far, but at present hardly any attention is being given to it at all."

How great is the active labor turnover among Philadelphia firms? Few firms make any attempt to keep records on this subject. In order to measure roughly the extent of this indifference, all of the firms on twelve squares of one of the leading streets in the textile district of Kensington were canvassed. Of eleven mills who were willing to discuss the point, all had no records of the size of the labor turnover—at best only a rough idea. To supplement further this conclusion, twenty-five confidential letters of inquiry were sent to representative textile firms. Of the seven answers received, only two possessed any records which showed the size of the labor turnover.

In a textile firm employing labor of medium skill, a study was made of the labor turnover, and the speed of the movement of labor through the shop in the Axminster Carpet Mill "A." The foreman had kept a list of the dates on which help entered and left his employ for the period of 1907–15. In this mill, as has been before pointed out, conditions were favorable for a low turnover, because style was not such an important element in the goods, and slack seasons could be used to pile up large quantities of stock. By compiling the foreman's records it was found that 75 per cent of the men and 66 per cent of the women employes remained in the em-

165

Average number employed →

148

Average number of annual hirings
minus permanent increases

Chart showing the relation between the average number hired per year in excess of those permanently added to the payroll in Axminster Carpet Mill "A" for the period 1907-1915, and the average number employed. Note that the number of annual hirings per year is about 90% as large as the number normally on the payroll.

This high labor turn-over has a direct and vital bearing on the employment problem; it can be greatly reduced by efficient management.

FIGURE 24

ploy of the firm less than one year. They also showed that 48 per cent of the men and 37 per cent of the women employes remained in the employ less than ten weeks. Yet the foreman asserted that "most of the employes do not do good work until they have been with us eight weeks." During the process of compiling these statistics he evidenced considerable interest. On seeing the final results, his comment was, "Who'd a' thought it?" These results are shown graphically and in greater detail in fig. 23.

The above figures represent merely the speed with which labor flows in and out of the shop. Measured in terms of the annual number of hirings in excess of the permanent increases, the average of such hirings was found to be nine-tenths as great as the number of employes. This is shown graphically in fig. 24.

Many concrete illustrations of the size of the turnover in many Philadelphia firms might be cited. In view of the absence of any comprehensive information for Philadelphia, a study made by Magnus Alexander, of the General Electric Company, throws general light on the size of the labor turnover. The result is probably fairly typical of Philadelphia. Mr. Alexander made a study of the size of the labor turnover among all classes of employes (except those belonging to the commercial and engineering organization and the general executive staff) in a large number of factories of all sizes in the United States and Europe. This study was made during the year 1912—which may be considered a normal industrial year. The investigation showed that the labor turnover (including necessary and unnecessary hirings) of these firms was over 100 per cent. On January 1, 1912, 38,668 persons were employed in all of these concerns. On December 31, 1912, 46,796 persons were employed. The increase in the working forces during the year, therefore, totalled 8,128. Yet, the records show that during the same period 44,365 people were engaged, indicating that 36,237 people had dropped out of the employment during the year. In other words, about $5\frac{1}{2}$ times as many people had to be engaged during the year as constituted the permanent increase of force at the end of that period.

Making allowance for the increase to the force, and for removals by death, illness and other unavoidable cause, Mr. Alexander concludes that practically the engagement of 22,140 could readily be

defended. What should be said, however, of the fact that 22,225 were engaged above the necessary requirement?

The wide scope of this study makes it reasonable to suppose that its results are, on the average, typical for the mechanical industries in Philadelphia as well as for any other industrial center.

Altogether aside from the degenerating effect of this state of affairs on the employe, it represents a big leak to employers. Different Philadelphia employers estimate the cost of unnecessarily discharging an average wage-earner at from \$30 to \$100, but here also there is little real knowledge of cost. Mr. Alexander's figures may be taken as typical. Based on estimates by employers for different classes of labor, Mr. Alexander figures that the loss incurred by these firms in unnecessarily hiring 22,225 persons during the year 1912, as approximately \$775,000. How little this loss is appreciated among Philadelphia textile firms as a whole is shown in the statement above referring to the small percentage of firms who keep records.

Granted the situation and its cost to employer and employe, what can be done about it? It is a well established fact that high labor turnover can be very largely and profitably reduced by greater care and efficiency in management.

The experience of one Philadelphia concern, manufacturers of a standard product which is almost without seasons, is significant. This firm employs nearly 1,000 persons. In 1911, when it first began to consider seriously the problem of excessive hiring and discharging of help, its turnover (based on necessary and unnecessary hirings) was 100 per cent. The next three years witnessed a steady reduction in the turnover, which, by 1914, was less than 20 per cent. Equally significant of the possibilities in the reduction of labor turnover is the case of a textile firm well known for the consideration shown for the welfare of its employes. This firm has a turnover so low that there is a common saying to the effect that if a —— man is "on the streets" there's something wrong with the man.⁷ The experience of a third firm, a cloth firm outside of Philadelphia, simply adds evidence that it is within the power of individual managers to reduce the labor turnover. This firm, by a

⁷Yet it is significant that when this firm, one of the best managed in Philadelphia, recently increased its force by 300, over 2,200 persons had to be hired to secure the 300.

scientific study of the problem, and as a result of earnest efforts to secure employment, reduced its turnover by 80 per cent from June, 1910, to July, 1914.

What are the methods used by these firms or approved by the more progressive employing concerns by which this terrific cost can be reduced, after management once becomes aroused to the importance of the problem?

It is apparent that if any impression is to be made on the excessive labor turnover, a great deal more attention and study must be given the "man" problem as contrasted with the "material and machine" problems.

The specific methods used by the above firms, and most widely approved by progressive concerns, to secure a lower labor turnover, are three:

- A. Better methods of hiring and firing.
- B. Better methods of training help.
- C. Reduction of fluctuations in employment.

A. Better Methods of Hiring and Discharging Help

The greater attention to the "man" problem must manifest itself, above all things, in much more attention to and study of scientific methods of hiring and discharging men. The first requirement is that the handling of the employment problem should not be left to the foremen of different departments, but should be transferred to some high grade functionalized employment official or department, according to the size of the plant. As the manager of the cloth firm previously referred to says: "For the employment function, every industrial organization should have some one person or department whose sole business is the study and handling of this problem. This is a function that cannot be administered by some head or underling in an operating department."

Unfortunately, the prevailing practice among the textile firms in Philadelphia is to leave the hiring and firing to the foremen of different departments. The canvass on "X" street (page 67) showed that, of eight firms who discussed the matter, six left the hiring entirely to the foremen of different departments. In two, the hiring was done by one functionalized officer for the entire plant. To supplement this canvass, a number of inquiries were

directed to the managers of twenty-five firms scattered at random throughout different lines of the textile industry. Of eight answers, six indicated that the hiring and discharging of help was left to the entire charge of foremen.

The result of this lack of centralized employment is an almost complete lack of touch between the responsible heads and intelligence of the concern and the employment problem. A statement that is applicable to many concerns was made by one of the heads (in charge of records) of a hosiery concern. "We would never know here in the office when a person is being taken on or laid off if their names were not sent down every two weeks to receive pay." In many concerns no one but the foreman has any record even of the names of employees. In the office workers appear as number so-and-so, which, for all the firm knows, may and often does mean, some one this week and someone else next week.

This lax method of hiring and firing by foremen means that the choosing of help is left in charge of a man who is already overburdened with other duties, and who, though he may possess a certain amount of technical skill and aptness in the processes of a particular department, has not the background for the successful employing of men. As a result, it becomes a secondary matter; and misfit employees, who are apt to become discouraged and leave, result. An extreme case of the lack of care under the foreman system is told of a Philadelphia textile factory. This firm advertised for help on a certain day. On the day indicated a large crowd of the jobless had assembled. When the doors were thrown open a mad scramble ensued as each person tried to grab a machine. Whoever got a machine remained. No selection was made. Surely this struggle was not one guaranteed to eliminate the unfit—the inefficient—or accurately fit men to jobs.

In another case, the foreman who was to choose new help threw a number of apples into the assembled crowd. Whoever caught the apples got the job.

The foreman is ordinarily incapable of judicious firing. Too often he uses his power to fire as a means of discipline, or as one large employer puts it,—“to keep the fear of God in their hearts.” Perhaps the ideal attitude toward the firing of help is suggested in the case of the large Philadelphia firm who orders a rigid investigation whenever a person voluntarily leaves their employ, to

ascertain why anyone should ever want to leave. The head of one of the largest employing concerns in Philadelphia very deftly suggests the evils of leaving the employment function in the hands of low grade men such as foremen often are, when he says, "Any mutt can fire a man."

Furthermore, the unsupervised authority of the foreman contributes to high labor turnover in the every-day relationship with his employees. Not merely does he bring in misfit help—who will soon leave—and discharges needlessly, but also he unconsciously drives many away by his sheer arbitrariness. One of the largest employers in Philadelphia, who works under the "foreman" system, says, "I have time and again seen my foreman do things that were absolutely cruel; and yet I am powerless to prevent it." A large lace manufacturer told the Philadelphia Secretary of the National Lace Weavers' Union, "I have more strikes and labor disputes as a result of the foolish and arbitrary acts of some foreman than any other cause." Closer supervision of the relationship between foreman and worker by a responsible executive should work toward the eradication of much needless withdrawals from the employ of the firm.

The result of the control of hiring and firing by foremen and the superiority of control by a functionalized employment department is evident from the testimony of the following employers. One employer says:

I know of cases of foremen who frankly acknowledged to their intimates that they make a practice of discharging so many people once in so often to keep alive a healthy appreciation of the dependence of employes upon them. I know of other foremen who have opinions which practically amount to superstitions, so baseless are they, as to the significance of certain unimportant details in an employe's work or manner. I could go on with such statements almost indefinitely. The real gist of the whole proposition, however, is that the company which is not willing to take a definite stand on this proposition of centralized employment is bound to have a labor turnover far in excess of what it needs to be, with a large consequent expense to itself therefrom, and thereby to contribute to the unemployment problem of the city or town in which it is situated. I have never been quite clear in my mind as to why it is that the average foreman or department head feels his authority to have been impaired when the employment function is taken away from him. Such is the case, however, and it makes a very difficult factor in the problem.

One of the heads of a forging and finishing shop in Philadelphia describes as follows the experience and efforts of their firm in dealing with their own employment problem:

a. *Better control of hiring men.*

It is common practice for the foreman of each department to be given full authority to hire their help.

As foremen generally are not of much higher type than the average workman, this practice is very unsatisfactory. Men are hired without thought as to their fitness for the work they are to do, but simply because they happen to be on the spot when a man is wanted.

As the turnover of help in a factory is such an expensive proposition, it seems advisable to have both the hiring and discharging of men supervised by some executive who can analyze the fitness and qualifications of an applicant.

When foremen need help in a department they can apply to this executive, and from his records he would be able to furnish help as needed and of a type that would be more likely to give satisfaction.

b. *Better control of discharging men.*

No foreman should be permitted to discharge men, as quite often discharges are made as much on account of personal prejudice as on account of inefficiency. Again, discharge for inefficiency is a sign of weakness in the organization, as, if a man possesses the ability to do the work when he is hired it means that the foreman has not fulfilled his duty if the man is a failure, except in extreme cases.

After paying good money to break a man in, it is the height of extravagance to replace him with a green man at an additional expense if it is possible to raise such a man to your standard.

If foremen are allowed to hire and discharge indiscriminately, it often happens that men are laid off in one department when they are badly needed in another, and that green men are hired where needed when such department could have had the pick of the ones laid off.

It stands to reason that a man who has been in the factory in any capacity long enough to know his way around and get acquainted to some degree with the product is a much better prospect for any other department than a green man taken off the street.

Discharges for inefficiency or indiscriminate laying off of help tends to increase the unemployment problem.

c. *Analyzed factory conditions.*

We have found that workmen drift from one place to another if not thoroughly satisfied and that the turnover of labor in the average factory is out of all proportion to the payroll. This turnover results in great expense to the manufacturer, as the breaking in of new help on any work requiring skill will cost at least \$50 to \$75 per head. The turnover also results in a great increase in the floating idle population of a city.

One of the duties of a functionalized employment department will be to col-

lect data which will throw light on each company's own employment problem. One employer says:

To begin with, what is everybody's business is nobody's, in the employment game as well as anywhere else. Men are picked to run a department on the basis of technical skill or aptitude in the processes of that department, and the employment of people is purely a secondary matter with them. As a result of this, in the first place, records are entirely lacking by which a company can study its own employment problem and learn from experience. If a centralized employment department did nothing else than to compile and issue the statistics of employment, I believe that it would pay any company to maintain such a department. When it is considered, however, that in any industry work is uneven in different departments and that the individual being fired from one department might be a valuable find in some other department which has a requisition in for additional help, the bearing of the question becomes even plainer.⁸

B. Better Methods of Training Help

A second method of reducing high labor turnover is by the adoption of more effective methods of training help. One of the frequent causes of workers quitting is the fact that they can't "get on to the work." While this is often due to innate incapacity, it more often arises out of the lack of any effective system in the plant for the instruction of new men. The supervision of the training in many cases will become one of the functions of the employment department in a large concern.

In many of the textile firms of Philadelphia there is either no system of training at all, or else the training consists solely in the privilege, on the part of the new worker, of watching an older employe for two or three weeks. Of the twelve firms interviewed on "X" street, seven had no training system, but depended solely on securing skilled workers ready made off the streets. In four, new workers were "trained" by being allowed to work with old hands for two or three weeks. Some idea of the thoroughness of such a system in one mill at least may be gathered from the fact that old hands were paid at the rate of \$1 per month to "train" new hands. In one of the twelve firms, the foreman did the instructing. Under such a system, it is not surprising that employers should complain of a scarcity of skilled labor, even in the midst of one of the most severe periods of unemployment ever experienced in the textile industries.

⁸A detailed statement of the organization, duties and advantages of a functionalized employment department, will be found in the May volume of *The Annals* of the American Academy of Political and Social Science.

Of the duty of the employer in this respect, one employer, in discussing methods of training, says:

A new employe, at the best, is undeveloped for the position which he is called upon to fill in any organization, and, as he has been employed in order steadily and permanently to fill a position necessary for the objects of the organization, he needs and is entitled to especial attention in order that he can be developed to fill that position fittingly. Given character and fitness for the organization, the acquirement of skill in the performance of a given duty is generally a matter of proper training being provided by the administrative side of the organization. It must always be remembered that skilled and fit men are not born, but made, and it is an essential function of any industrial organization to train men and make them fit for specific position necessary to the objects of the organization. There is no broader admission on the part of a manager of his own inefficiency and his own lack of comprehension of his duties and problems than the oft heard complaint on his part of the lack of skilled men.

Every improvement in training methods will aid in improving the unemployment problem by transferring workers from that tremendously overcrowded class and placing them in the ranks of the higher skilled, in which there is at present frequently a scarcity.

C. Reducing the Fluctuations in Employment

Obviously the third step in reducing labor turnover will be the need for a more serious study of means by which all forms of fluctuation in employment may be reduced.

Recognizing that the rise in some form or other of functionalized employment departments is a growing thing, and a thing to be assisted; recognizing also that the problems that confront those in charge of employment work in different firms are so complex that every manager needs to profit all he can by the experience of every other engaged in similar work, a number of employers, at the invitation of the Director of Public Works, met and formed the Philadelphia Association for the Discussion of Employment Problems. This is a purely voluntary association for purposes of study, involving, on the part of members, no joint support of each other in labor troubles or of any outside course of action. Its object is to pool experiences and discuss common principles governing employment so that the wastes experienced by both employer and employe resulting from improper selection, direction and discharge of labor may be eliminated.

5. BY A CLOSER COÖPERATION BETWEEN THE MANUFACTURING
AND SELLING ENDS OF A CONCERN AND THE
STANDARDIZATION OF PRODUCT

It is frequently true that a lack of coöperation between the manufacturing and selling ends of a business breeds a working at cross-purposes, without the joint idea of assuring continuity of production and employment to the manufacturing end.

The textile industries in Philadelphia suffer particularly in this respect. Among textile centers the country over, Philadelphia is conspicuous by the extent to which small mills compose her textile business. A very large percentage of the heads of these mills have at some time in the past come up through the mills as weavers. By dint of energy and frugality these men have been enabled to secure a start and to permanently establish their business. Such a history does not imply a broad business experience. As a result, many manufacturers say, "We are not sellers, we are manufacturers. That's enough for one man." A lack of capital has also contributed to this attitude. As a result, many have confined themselves solely to the manufacturing end and given little attention to the selling end, which has been turned over bodily to sole selling agents usually in New York City.

Under the arrangements made, the selling agent was frequently given a free-handed authority. This gave him power to disregard continuity of production for the employer; and he naturally bent his efforts to selling that which was easiest for himself. Moreover, frequently the manufacturer turned over to his agent the entire job of marketing his goods. The producer could sell through no other source. The seller on the other hand usually sold for a number of others who made the same or a very similar grade of goods. The seller came to represent the entire market to the manufacturer, while the manufacturer represented only a small part of the business to the seller. Out of the better bargaining-position of the selling agent, he obtained an amount of authority that manifested itself in a number of abuses seriously contributing to irregular employment. In discussing these abuses especial reference is made to the hosiery industry (one of the largest branches of the textile industry in Philadelphia).

Abuses: a. In the first place, the agent has nothing to force

him to make serious effort to "back up" the employer. The selling end has expected the manufacturing end to be resourceful enough to cope with great irregularities in orders in good times and bad. When the whisper of hard times was first heard, the tendency was for the agent, who had small organization and little overhead, to "lay down" in his efforts just at the time when the good of the producing concern demanded that the greatest pressure be placed on the selling end. The manufacturer, not in touch with his market, was not able to go out and strive for more orders, even had he been willing and able to do so and had his contract with his agent permitted it. His only alternative was lower prices. On the other hand, one Philadelphia hosiery manufacturer who sells direct, spent \$1,000 extra this past winter in pushing his sales so that his organization might be held together over the present winter.

The jobber further reduces the demand for goods at critical times by a considerable reduction of the stock of goods carried as a reserve to supply the trade. Many large hosiery manufacturers in Philadelphia have given the sellers' lack of sufficient effort to secure regularity of orders, in good times and bad, as the chief reason for the firms cutting out the agent and doing their own marketing.

b. In the second place, it is an easy matter, since the goods are not sold under a manufacturer's brand, for the selling agent to divert the orders that have been going to Manufacturer "A" to Manufacturer "B." Although the same number of orders may be coming through to the manufacturing trade as before, still, a long period of unemployment must result before readjustment will be made. On the other hand, where the hosiery is sold under the manufacturer's brand, the orders cannot be diverted, at will, to anyone. They belong to a particular manufacturer. That manufacturer has stabilized his market and secured a grip on the only steady element on merchandizing—the consumer's demand. Every phase of his activity, including the employment of labor is, therefore, subject to less uncertainty and fluctuation. By possessing a market for a standardized product, a manufacturer can more readily make to stock and thus run his mill steadily, even though orders are irregular.

An example showing the degree of dominance that the selling agent aims for under the "sole selling agent" system is the case of

a Philadelphia firm. When this firm began to sell direct, the former agent felt so outraged that it publicly announced it would drive this firm out of business in two years.

c. A third abuse is the evil of cancellation. As one textile man said, "The textile business is the most weak-kneed of any I know. In it, a contract is not a contract." Even though an order may be filed with a manufacturer, the goods bought, and even in many cases made up and shipped, in practice the buyer still has the right to "call off" the order. In some years, in certain lines, the percentage of cancellation runs over 50 per cent. A person closely in touch with the hosiery business "very roughly estimates" the average percentage of cancellations as eight. One Philadelphia concern had to close down when it received recall orders from its agent to 85 per cent of a season's orders.

The significance of cancellation, in its relation to unemployment, does not lie in the percentage of orders discontinued, but in the fact that the practice tends to disorganize production and keep employers afraid to "make up" orders until delivery time is near and every possible opportunity has been given for cancellation. This creates busy periods just before a season's delivery and slack periods at other times. The hosiery manufacturer who sells direct can and does to a very much larger degree prevent this practice.

d. In the fourth place, the manufacturer who "farms out" his selling does not have his ear to the ground. He is slow to readjust himself to changes in demand—a constant complaint from the selling agent. In a business characterized by frequent veerings in demand, as in the textile business, close touch with the market is particularly vital. As the great expansion of our own manufacturing industries plus the introduction of foreign goods takes place, markets will be better supplied than formerly; the consumer will be given a greater choice in his purchases; and he will be less inclined to buy whatever may be set before him whether it suits him or not. Because the consumer has become king it is essential that industry be so organized as to be in the closest possible touch with the changes in his demand. For example, the hosiery market in the last five years has come to demand less and less heavy cotton goods and more and more thin, imitation silk and silk goods. The manufacturers who are in touch with the market have been quicker to readjust themselves to this change than have those who sell through

Chart showing the variations in total payroll in seven large hosiery mills, at each two-weekly pay day from Jan. 1913 to May 1915. Figures at side of chart represent the amount of money paid out each week; after the chart was constructed percentage figures were substituted to avoid disclosing business of individual firms.
Note the greater steadiness of the latter's production and employment.

The product is, as a whole similar, except that the firms who sell direct, usually carry a larger variety

SOLID LINES = payrolls of firms who sell through sole selling agents

DOTTED LINES = (payrolls of firms who sell direct to the retail trade under their own brand

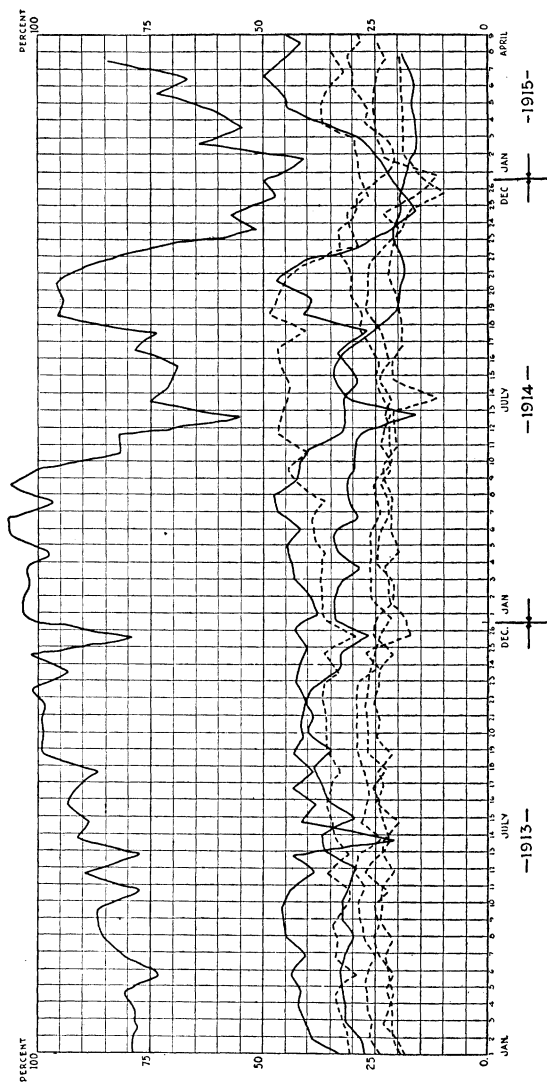


FIGURE 25

agents. Unemployment results from any such miscalculation of the market.

A final instance of the way in which a Philadelphia manufacturer failed to make the selling end of his business properly articulate with the manufacturing end, may be mentioned in the case of a cloth manufacturer whose agent is primarily the agent of another concern making a totally different kind of goods. The seller "goes on the road" at the time of year suited to the needs of the larger client. This happens to be the wrong time of year for the Philadelphia cloth manufacturer; so his sales are not large.

It is a significant fact that among the most successful hosiery manufacturers are a number of men who were formerly salesmen in large distributing houses. They know almost nothing about the manufacturing end; they do know how to sell.

In order to show the contrast, in production and employment, between hosiery manufacturers who sell direct under their own brand and those who sell through agents under jobbers' brands, figures were collected from eight of the leading hosiery firms in Philadelphia. These figures give each firm's total payroll at each two-weekly paydays during 1913, 1914 and to May, 1915. The kind of hosiery manufactured by each firm is stated in the footnote. The payroll curves showing a greater irregularity in firms who sell through selling agents are given in figure 25.

What one firm has been able to accomplish, in a seasonal business, through study and control of its selling end is suggested in a letter as follows:

What we have accomplished in the direction of leveling the curve of seasonable work has been done chiefly through the selling end.

Our business in jewelers' boxes used to be extremely difficult because practically all of the output was made to order and work could seldom be started until May or June, and had to be completed well before Christmas. Our factory, therefore, used to be out of work from the middle of December up to the middle of May, and so seriously overcrowded from that time on that poor service was frequently given customers and our business considerably damaged. A few years ago we began to make earnest efforts to get box orders in earlier. After the first year or so of readjusting, we found our customers were more than willing to help in this work, so that today the majority of our orders reach us between the first of January and the first of June. This requires facilities for holding the goods until the date desired by the customer for shipping, and, of course, ties up capital, but we are able to keep experienced workers busy the year through, are able to give almost perfect satisfaction in service to our customers, and through

the consequent savings and increased business the cost of carrying the goods has been covered several times over.

One striking effect which went way beyond our expectations was the improvement in quality of our output, which under the old system suffered more than we realized through the work of untrained hands and the crowding and strain of the fall season.

Our line of Christmas specialties has been handled in the same manner, though an easier problem, because none of these goods are made to order. Designs for Christmas, 1915, were chosen in July, 1914, then approved and laid out as to the way they should be put up, etc., so that the sample run could be ready by March, 1915. The goods are then sold for fall delivery and the stock manufactured during the first six months of the year.

We have found it possible once or twice to add to our line an item or two that could be made to fill in a gap in regular employment; for example, we introduced Christmas cards printed with steel die in order to keep our die-printing crew at work during a slack three months.

Again, we have made good progress by substituting stock items for specials. For example, certain goods of a standard type, ordered periodically by our sales end, were manufactured special as the calls came in—sometimes in dull times, but more often during a rush period, by selecting certain lines and manufacturing a sufficient stock during the dull months the situation has been greatly relieved.

The containers which are used for our merchandise were formerly made by us at different intervals, but under the new plan the entire quantity is manufactured during the first three months of the year. Many other moves of this sort tend toward further relief.

Our problems are undoubtedly easier than those of some other industries; however, we feel from our experience that if the advantages of regularizing employment become appreciated by the employer, some possible steps will suggest themselves, and these will in turn suggest further steps, so that considerable improvement, if not a big cure, can be effected.

The following is a statement of a Philadelphia forging and finishing firm. This firm has so coördinated its selling and manufacturing departments that greater regularity in employment is secured.

a. Continuity of Employment. By an analysis of factory conditions we have found it possible to minimize the loss of time on the part of our men due to changing machines from one pattern to another by making orders to the factory of the maximum size and by endeavoring to make changes from one size to another in a distinctive pattern rather than a blind change from one pattern to another. By this method we have increased the efficiency of our plant to a marked degree in so far as production is concerned and have cut down materially the average "turn-over" of our labor.

b. Complete Analysis of Sales Covering Patterns and Sizes by Months. By the installation of this system we find that some goods are so seasonable that the demand can be anticipated and goods made up in dull months in readiness for

the market. The anticipation does away with non-employment to some degree, and keeps the manufacturer from being overwhelmed with certain items at what is probably a very busy time on other lines. In other words, it levels the peak load and raises the curve of dullness.

c. *Dull Business.* In times of depression that are so pronounced that none escape entirely, it is necessary to push the selling force with more than usual energy. It is our aim to get out new designs or patterns to create interest and to stimulate business with selling helps for the merchant, pointing out to the retailer that in time of depression it is necessary to approach the retailer problem from a different angle, and that by the use of such helps he can increase his trade. We further try to market new lines of goods in order to keep our working force employed.

A shoe manufacturing concern (outside of Philadelphia) codifies the results of its ten years' experience in attempting to reduce seasonable unemployment (8 to 16 weeks) as follows:

Unemployment:

a. Resulting from: Seasonable demand for product where employees are laid off and work on short time for a considerable period.

NOTE. In the majority of shoe factories, particularly in the large shoe centers, this causes shoe workers to be unemployed for periods ranging from eight to sixteen weeks per annum; in some cases more than this. Many of the employees are laid off entirely but more often are obliged to work on very short time and at greatly reduced wages.

How Improved:

a. By education of distributors to a realization that in the long run this lost time has to be paid for in the product and by getting their coöperation with this company by working on monthly estimates, put in at the beginning of the season. In busy periods customers who order above their previous estimates are cut down on deliveries in favor of customers whose estimates are not overrun. Customers are not held strictly to monthly estimates, but failure to follow them is regarded as a sales problem and is freely discussed.

b. By the manufacture of special goods, made up without orders and sold through a special department created for that purpose. This department sells goods only when allotted to it, and sells them through special distributing channels, giving special values and special terms.

c. By distributing through both wholesale and large retail trade whose deliveries come at different periods.

One automobile concern pushes to the limit the business of coördinating the selling end with the manufacturing end by addressing its sales force in substance as follows: "We can make so many cars of each different grade this year. Now go out and sell that many."

From the foregoing illustrations, the importance of a standardized product is evident, as well as the part which a correlated sales department can consciously play in making possible a market for this product. In lines such as clothing, standardization of even a part of the product is a herculean task. In other lines standardization is relatively easy and can, therefore, be made to assist very materially in the steadying of production. The experience of one firm is a remarkable instance of how a little planning can result in standardizing production. This firm manufactures articles of printed matter used by everybody (*e.g.*, envelopes). They describe their work as follows:

We have started here with month work along this very line, which we are calling "Standardized Orders" selling 10,000 to 20,000 articles of the same grade and style of printing, the same kind of paper, size, etc., running one order per month of these small orders totaling 1,000,000, etc., guaranteeing delivery of same at the end of the month. This gives us a large monthly stock order made up of a number of units, each unit calling for different electrotpe and shipping instructions only.

In this way our prices can be made more attractive, the mass of detail connected with Planning Department is largely reduced and it gives us an even distribution of work, largely reducing the old rush orders, rush periods, overtime or night work, etc., and keeps our force more steadily employed. The profits from a Standardizing Order are very attractive, although the selling price is considerably less.

Not merely is this a good thing for the manufacturer and the employe, but also it is an even better thing for the buyer not to be running out of such a necessary commodity all the time.

6. TIME LOST WAITING FOR DYE (OR OTHER MATERIALS)

Most of the dyeing of textile fabrics in Philadelphia is done by separate firms, apart from the ones in which the dyed goods are made up into fabrics. Only a few firms maintain their own dye-plants. As a result it frequently happens in many firms that, when a fabric of complex pattern is to be woven, it will be found that a certain shade of goods has been forgotten. Or, before the garment is completely woven, yarn of a certain shade will run short. While more yarn is sent for, the loom stands idle. In some mills it is a rarity for weavers to make a full week, on account of having to wait for "dye." At times this wait extends to one or two weeks. The secretary of the Brussels Carpet Weavers' Association estimates that in some mills the loss of time runs as high as 16 per cent.

That this lost time can be prevented is shown by many firms in parallel lines of the textile business, which may or may not operate their own dye houses, where the time lost waiting for dye is practically nil.

The problem of time lost waiting for dye is simply a part of the larger time of the daily and hourly interruptions in the plant, waiting for this or that reason. Though apparently small, this loss, in the long run, totals large. A shoe firm measured this lost time and succeeded in eliminating it to a large degree. See the following outline:

LOST TIME OF EMPLOYEES THROUGH DAILY AND HOURLY INTERRUPTIONS

Resulting from:

- a. Employees coming late; lost time inconsiderable.

How Improved:

1. By "In Late Pass System," a proper investigation by foreman, and discipline where needed.
- b. Employees going out or being laid off early, due to lack of work or stock. (Estimate lost time two to five weeks.)

How Improved:

1. By organizing material purchasing and supply system, based on pre-determined sheet system, which gives purchasing departments ample time to purchase all material to exactly meet daily requirements, and to know absolutely when goods must be delivered in the various departments to meet the product in which this material will be needed.
 2. By adopting a pre-determined standard daily production and by holding rigidly to it, foremen are enabled to compute accurately the number of employees needed on each job.
 3. Pre-determination of employees needed on each operation is facilitated by the fact that all work is piece work, based on standard average production of operation.
- c. Lost time due to fluctuation on special operations or in special departments, due to variation in the class of product. (Estimate lost time one-half week.) (Note:—Estimate 10 per cent of employees lost five hours a week, fifty weeks a year, equal one-half week.

How Improved:

1. By system of routing work into factories, not only uniformly in pairs each day, but also uniformly in pairs per day in certain types of product, such as patent leather shoes, bluchers, tan calf, button boots, etc. Where production on these items vary whole operations or departments

may work under badly fluctuating loads. By routing such types of work into the factory at a uniform rate per day for pre-determined periods these operations are given a steady production, as well as the operations through which the total production passes.

There are many other ways similar to the above by which unemployment problems on special operations or departments can be wholly or partially solved. By keeping constantly in mind the necessity for steady employment it is usually possible to bring about good, or reasonably good conditions.

To secure vacations for employes the entire business is shut down for the Fourth of July week, giving employes an opportunity to get rested just before the hot weather.

June and November are our most difficult months. We formerly closed four days in June and four days in November for stock taking. This was discontinued several years ago. Except for this inventory period there have been only one or two seasons in ten years when factories have been closed, and then only for one to four day periods.

Stopping this kind of unemployment is the business and duty of management.

7. LACK OF BALANCE BETWEEN DEPARTMENTS

It is true, in many cases, that one department in a continuous industry will be too large, so that it is capable of producing for the department it feeds faster than this latter can consume. As a result the department that is too large must lay off and wait for the other to catch up. This results either from an honestly unsuccessful effort to balance the different departments, or from an effort to insure that the departments with low-priced help and machinery shall be so large that they will never fail to keep the more costly departments busy.

In Axminster Mill "A," the study showed that the "winding" and "picking" departments, which "feed" or are fed by the "weaving" and "setting" departments, each lost 31 per cent of their working time during the four-year period from April, 1911, to April, 1915. Yet the weaving department lost only 23 per cent and the setting department lost only 19 per cent of the working time. These figures indicate that unemployment is being created in the winding and picking departments because they are too large for the others.

8. STOCK TAKING

A large percentage of the textile firms lose from one to three weeks' time a year in taking stock. Many of the payroll curves

of individual concerns in the textile industry indicate that shut-downs for one or two weeks a year are quite common in the textile industry. In fact, many firms lost from one to three weeks a year taking stock. Side by side with these firms, in similar lines of the same industry, are those which avoid, by a variety of devices, the loss of any time at all through the taking of stock.

It should be remembered that many concerns' lost time that is credited to stock taking is really due to lack of orders.

9. LIMITATION OF THE AMOUNT AN EMPLOYEE IS ALLOWED TO EARN EACH WEEK

In many mills an employee is not permitted to earn more than so much a week. Either he must go home after earning that amount or else he must dawdle around the plant, pretending to work. In some cases, this rule is put in force by the employer with the hope that, by thus distributing the work over a larger number, a larger labor reserve is kept available for his particular plant. In other cases, it is a rule promulgated by labor unions who either want what work there is distributed over all in the trade, or who fear that if ability to produce a larger output is shown, the price rate will be cut down. The result in either case is the same.

One of the largest employing concerns in Philadelphia places a limit on the amount that employes in certain departments may earn. Investigation showed that in a two-weekly payroll sheet of a large hosiery firm in Philadelphia, 31 of 69 piece workers in the pressing department earned within five cents of \$36. Since these employes were not allowed to go home early, a good many trips to the water cooler must have been involved.

10. FREQUENT CHANGES IN STANDARD DAILY PRODUCTION POLICY OF FACTORIES ACCORDING TO VOLUME OF ORDERS IN SIGHT

One Philadelphia concern, employing many thousands of men, regulates the laying off of help by the total volume of business booked so many weeks ahead. Running a plant by such an arithmetical rule means that production will be as irregular as orders, and necessarily implies great irregularity in employment. Within a six weeks' period in 1908, this firm laid off 60 per cent of its help.

The methods of the shoe firm, mentioned above, in eliminating

the two to four weeks of annual unemployment are described by this firm:

Frequent changes in standard daily production policy of factories, according to volume of orders in sight.

NOTE. Many factories have no standard daily production basis, but change frequently, taking on or laying off help as needed. Roughly estimated, this causes unemployment of from two to four weeks per annum, in many cases much more.

How Improved:

1. By adopting and holding absolutely to a uniform standard daily production basis for each factory. Many of our factories have run for a period of several years, putting into the factory each day a production varying not over one per cent.

2. When orders do not in a monthly period or block equal the factory capacity, by filling in with special stock goods in small quantities, to be distributed through the special department previously mentioned.

3. When goods needed to fill monthly delivery blocks are necessary, by asking distributors to send in orders on staples to fill shortages.

11. MANUFACTURE TO STOCK

One of the most common methods,—so obvious as hardly to need mentioning,—adopted to assure steadiness of employment, is the practice of using the dull seasons to manufacture to stock, where the product is of a nature that does not lose value through being stored. When the main product cannot be stored, firms frequently use the slack period to make up a special product.

12. MISCELLANEOUS PRACTICES BY EMPLOYERS WHICH LESSEN OR INCREASE THE BURDEN OF UNEMPLOYMENT

- a. Giving Notice of Lay-off.* Where the periods at which help is laid off are fairly regular, and can, therefore, be predicted in advance, it is not too much to ask employers to give notice beforehand of the date on which such lay-off shall take place. This plan is perhaps best adapted to department stores, where it is known long in advance that a certain percentage of hands will be laid off at certain periods. In most department stores, however, this practice is not followed; and extra help is hired under the agreement that it may be laid off without notice.

- b. Dovetailing of Trades.* Where there is a regular seasonal laying-off and taking on of help, there are possibilities of regular

seasonal transfers between firms whose busy seasons and slack seasons dovetail. This "dovetailing of trades" is almost unknown.

A printing firm (outside of Philadelphia) with a maximum demand for help in the summer months, writes, as follows, of a plan it has in mind for the regular exchange of help between itself and a neighboring department store:

What we had in view was to have an evening school of instruction so that a selected group of girls from our firm could be trained for the work required from sales girls in a department store.

There is a civic association in this town where they have evening classes. I believe they teach domestic science, millinery, sewing, etc., and I see no reason why it would not be perfectly practical for arrangements to be made so that a competent person from a department store could teach a class how to make out the sales slip, to meet customers and the best methods of doing the required work.

I hope some time that this will be tried out. Undoubtedly it would be much easier to bring this about if two plants were near to the homes of the workers. We are fourteen miles from the department store, and most of the women employees live in this town and they do not like the work in the department store on account of both the carfares and the time required to make the trip.

This practice would tend toward continuity of employment to employes and would insure the retention of trained help by each concern. A few firms, when it is necessary to lay off help, assume responsibility for securing new positions for them. This represents an ideal attitude on the part of such business firms. A general adoption of this practice would do much to assist in the dovetailing of trades with its resulting advantages to both employers and employees.

c. Loans to Employes. A Philadelphia firm that manufactures shirtwaists has, for ten years, loaned money without interest or collateral to its employes. Assurance is asked that the money is not to be spent viciously; other than that, the company does not meddle in the employes' use of the loans. It is a significant commentary that this firm has never lost a dollar during the entire ten years, through failure of employes to return what was borrowed—and the firm employ several hundred workers.

d. Retaining all of the Employes' Time at Fractional Productivity. It is the practice in some textile mills for a man to operate two or more looms. In dull times the employe is allowed to run one loom only. Thus, although the employe is working only at half or at third capacity and wages, he is forced to spend all of

his time in the mill. If the weaver were allowed to run all of his looms when in the factory, he would make just as much, and at least have a holiday out of his unemployment in which he could rest, pick up odd job here and there, or seek steadier work. The firm undoubtedly follows this practice so as to "hold" on to its employes. It is a practice, however, which even the "benevolent" argument—"by this means we keep them out of saloons"—cannot justify.

e. Enforcing Needless Expense on Employes During Periods of Unemployment. One of the largest of the employing concerns in and around Philadelphia has a factory located over ten miles from the homes of most of its workers. Although for a year the firm has been running to a very small percentage of its capacity, it has required all employes to report at least once a week to the office of the plant ten miles away regardless of whether there was any work to be done or not. Employes who did not so report were laid off the list of those nominally on the payroll. This rule required a weekly carfare expenditure of ten or fifteen cents each way. Thirty, or even twenty cents a week is a very severe drain on the resources of a man who has been working little or none for over a year. The company had offices near the homes of its workers where reporting could easily have been done, if necessary. The carfare expense might thus have been avoided. Imposing such a needless burden is evidence of a criminal lack of responsibility on the part of that individual firm.

f. Part-Time Employment. Permanent part time employment has already been condemned (p. 59). As an emergency measure to distribute employment in conditions of unusual stress, it can often be of great service. The head of a Philadelphia concern employing several thousand men writes as follows:

Employers can do much to reduce the amount of unemployment. Managers of active manufacturing business can and should make employment much more steady than has too frequently been the case, and can use perfectly legitimate means to reduce to a minimum fluctuations in the number of employes due to times of industrial depression. Employers owe a duty to their employes, to their stockholders and to society to keep their working forces intact, active and well content, and the strongest possible measures should be used to this end.

One of the most important means to this end was freely practiced during a period of depression and hardship which occurred during the winter just closing, in that it was found possible to take the amount of work available in a very de-

pressed period and spread it and the wages consequent upon this work over as many *families* as possible, thus distributing the money available for wages, even though in smaller quantities per unit, over a larger number of individuals, and keep them from absolute unemployment to a greater degree than would have occurred had the same amount of wages been spread over a smaller number of employes working practically full time.

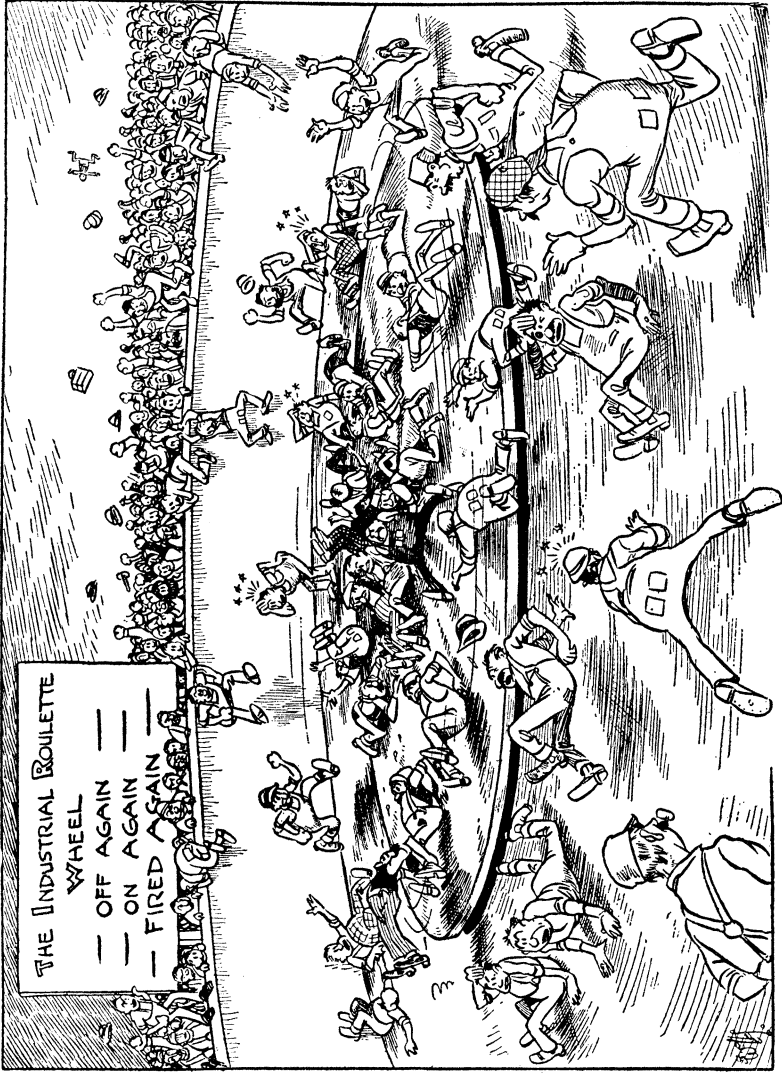
It is fully recognized that this is not good manufacturing efficiency, but it was deemed a humanitarian measure to be executed in times which were very hard for both employer and employed. It is certain that the employes who experienced this form of coöperation appreciated what was being done, and all seemed willing to assist to the fullest degree. Naturally, there was no discussion of these measures—they were simply tried and found to be useful and successful.

Apropos of the same point, another employer writes:

At times of industrial depression the working force should not be cut down except only under such extraordinary conditions as may be forced upon the industry, which are absolutely beyond its control. When there is not enough work to keep the entire working force steadily employed, the number of hours of employment should be reduced equally throughout the whole organization. If all managers realized their duty in this respect, both to their organization and to the community, there would be very little, if any, aggravation of the problem of unemployment during periods of industrial depression.

Where part time is necessary, many employers can, without difficulty, so arrange the working time that the burden of unemployment can be considerably lessened. For example, if the worker is allowed to work full time for several days, then take several days completely off, he is in a better position to make some use of his idle time than if he worked every day at fractional time.

g. Times of payment. One concern interprets the rule that firms pay their help every two weeks as meaning "every two weeks of completed service." In other words, this concern pays only after an employe has worked for twelve days even though that twelve days may be distributed over a six, eight or twelve weeks' period, as it is during slack periods. As a matter of fact, this firm is decidedly irregular, so that this is frequently the case. Earnest and dignified protests from conservative business associates have been repeatedly ignored.



In industrial concerns employees are continuously coming and going. The number hired and fired is out of all proportion to the number employed. The average concern hires as many new persons during a year as it employs regularly. Such an excessive hiring and firing is costly to employers, has a degenerative effect on employees, and is one of the basic causes of unemployment. (See page 63.)